



Bow Drill

Written By: Wendy Tremayne



TOOLS:

- [Handsaw \(1\)](#)
- [Knife \(1\)](#)



PARTS:

- [Branches \(1\)](#)
- [String \(1\)](#)

SUMMARY

While visiting New York's Berkshire Mountains region last winter I happened upon a crew of girls who knew how to whip up a bow drill to make fire without a match. A bow drill has 4 parts: the bow, the spindle, the fireboard, and the handhold. This is what they taught me.

Step 1 — Choose and whittle your wood.



- For your fireboard, find or whittle a flat board as thick as your thumb and bigger than 3" wide and 3" long.
- For your spindle, choose a straight-grained branch that's a thumb knuckle in diameter and 8" in length. Whittle into a dowel shape, removing the bark, with a semi-sharp point at each end.
- For your handhold, find a 5"-long piece of wood (slightly narrower in width), semi-flat on one side. To make the handhold notch, whittle a 1/2"-deep hole sloping at 45° to its center.

Step 2 — Make the bow.



- Pick a bow from a live branch that's the thickness of your index finger and a few inches longer than your arm.
- Choose a string thicker than a shoelace and 5" longer than your bow. Using a clove hitch or square knot, tie it at each end of the branch.

Step 3 — Drill a pit into the fireboard.



- Loop the bowstring once around the spindle. With one end of the spindle on the fireboard and the other in the notch of the handhold, apply firm downward pressure to the handhold while bowing back and forth so the bow turns the spindle in both directions.
- Increase the speed. Stop when you've burned a pit into the fireboard that's the diameter of the spindle, and dark with charred wood dust.

Step 4 — Make a notch in the fireboard.



- On your fireboard, cut a pie-shaped V-notch that reaches the center of the pit you just drilled. This is easiest if you've drilled your pit near the edge of the fireboard.

Step 5 — Spin a hot coal.



- Place the fireboard on a surface that will catch the black sawdust, which creates a hot ember or coal. Look for smoke and a red glow as you use the bow to spin the spindle.
- When the dust reaches 800°F, it will create a glowing coal that can be placed in a tinder bundle or kindling teepee to create a matchless fire.

This project first appeared in [MAKE Volume 21](#).

This document was last generated on 2012-11-03 01:21:50 AM.